

61

acts as a connector to a power source for diathermy not illustrated here. To the basic end of the body 462 is attached a rubber cap 476 which allows the passage of the tool insert 472 and prevents leaks through the gap with the external wall of that insert.

In the gap, between the flange 474 and the rubber cap 476, is inserted a coil spring 477 which surrounds the tool insert 472. This coil spring 477 gives a tension through the flange 472 to the tool insert 472 so that the electrode 473 prepared at the tip of the tool insert stays within the channel 468.

As shown in FIG. 116, on the lateral wall of the body 462 close to the basic end, is attached an elastic plate 478 which is constituted with a rectangular, elastic member extending in parallel with the long axis of the tool insert 472.

Close to the basic end of the elastic plate 478 are joined a nail-like process 479 which extends towards the tool insert 472 and whose tip is slightly curved towards front, and a handling strip 480 which is placed opposite to the process 479, and takes an L form towards the base.

The elastic plate 478, process 479 and handling strip 480 can be prepared as a unit, or may be prepared after any one of them has been separately prepared and combined with the rest. The elastic member includes metal plate springs, thin resin plates or the like, but it may be made of any material as long as it has a sufficient elasticity. The insert 461, body 462 and treatment segment 463 are made of an insulating material.

With the surgery stripper with above constitution, a cable from a diathermy power source not illustrated here is connected to the plug 475.

The stripper, while the coil spring being extended as shown in FIGS. 117 and 119 and the electrode 472 at the tip being kept retreated in the cavity of the treatment segment 463, is inserted into a body cavity. After its tip having penetrated into the cavity, the site to be treated is stripped of tissues bluntly with the mesh 467 prepared on the tip of the treatment segment 463. The open/closure buttons 406 and 407 are operated as appropriate to irrigate and evacuate the cavity.

When thin vessels or ligaments are encountered which are unresponsive to blunt stripping, the flange 474 is pushed towards the front end. Firstly, the front surface of the flange 474 gets contact with the process 479. When the flange is pushed in further, the process 479 is pushed aside by the flange 474, and the elastic plate 478 is bent outward, to allow the flange 474 to pass in front of the process 479. Once the flange has passed, the process resumes the original position through the elastic action from the elastic plate 478. At this stage, the flange 474 engages with the process 479, and, as shown in FIG. 118, the electrode 473 at the tip of the tool insert 472 protrudes from the opening 469 of the treatment segment 463, and stops there.

After the vessels and ligaments have been treated appropriately with the electrode 473, the handling strip 480 is moved towards the direction indicated by the arrow in FIG. 118. Then, the engagement of the process 479 with the flange 474 is released, and, through the spring action from the coil spring 77, the electrode 473 at the tip of the tool insert 472 retreats to the position within the treatment segment 463.

As seen from above, the surgery stripper of this embodiment not only brings about the same effects as seen in the twenty-fourth embodiment, but also improves handling of tools and shortens the time required for surgery, because the tool introduced into the channel 486 is allowed to stay at a retreated position within the treatment segment and, when in use, to stay at a protruded position at will.

62

Further, as a contrast agent has been added to a material that constitutes the treatment segment 463, or applied onto the surface of the segment, the segment can be easily located in the body by X-ray photography or other appropriate means, and could be safely recovered, even if the segment falls and is lost during operation.

Further, as the system allows only the treatment segment to be disposable, the use of system becomes sanitary and requires only a low cost. Furthermore, as the insert 461, body 462 and treatment segment 463 are all made of an insulating material, the operator is safely guarded against electric shocks even if electricity is supplied from the power source 473.

It is needless to say that various embodiments with a wide range could be constructed from this invention without stepping out of the scope and concept of this invention. This invention is not limited by any specific embodiments except by the claims attached herein.

What is claimed is:

1. A cavity-retaining tool for bone surgery comprises:
 - a sheath for retaining a cavity which is introduced into body tissues and maintains a work space for bone surgery by retaining a cavity;
 - a treatment channel which is prepared within the cavity-retaining sheath, and guides tools for the treatment of bones into the work space for bone surgery;
 - an observation means which is prepared within the cavity-retaining sheath, and by which an operation field in the work space for bone surgery is observed; and
 - a fitting member which is placed at a tip of the cavity-retaining sheath, and fits the tip of the cavity-retaining sheath to a bone, the fitting member including an end portion having contour means for mating the end portion to a selected surface of a bone.
2. A cavity-retaining tool for bone surgery according to claim 1 in which the end portion of the fitting member includes a bone fitting segment which allows the tip of the cavity-retaining sheath to fit faithfully to a shape of a bone.
3. A cavity-retaining tool for bone surgery according to claim 1 which further comprises:
 - a core needle which is placed in the internal cavity of the cavity-retaining sheath, and acts as a support to facilitate the insertion of the cavity-retaining sheath into body tissues;
 - an air-tightness retaining means which is placed in the internal cavity of the cavity-retaining sheath, and hermetically seals the gap with the cavity-retaining sheath; and
 - an air-tight adapter which allows treatment tools to be introduced into the channel for treatment in an air-tight manner.
4. A cavity-retaining tool for bone surgery according to claim 1 in which the channel for treatment is further comprising provided with a depth control means which controls the depth down to which a treatment tool is allowed to descend for treatment.
5. A cavity-retaining tool for bone surgery according to claim 1 in which the observation means comprises a transparent member which is allowed to form at least part of the tip of the cavity-retaining sheath.
6. A cavity-retaining tool for bone surgery according to claim 1 in which the observation means comprises:
 - a scope channel instituted in the cavity-retaining sheath; and
 - an endoscope which is inserted through the scope channel.

63

7. A cavity-retaining tool for bone surgery according to claim 6 in which the cavity-retaining sheath has a channel for treatment which allows the insertion of tools necessary for bone treatment, and the scope channel and the treatment channel communicate directly or indirectly through an opening, with the internal passage of the cavity-retaining sheath.

8. A cavity-retaining tool for bone surgery according to claim 7 in which the fitting member is represented by an anchoring means implemented at the tip of the cavity-retaining sheath.

9. A cavity-retaining tool for bone surgery according to claim 7 or 8 in which each of the channels has its own air-tight means.

10. A cavity-retaining tool for bone surgery according to claim 6 in which the scope channel has a fixing means by which to fix an endoscope at a desired position.

11. A cavity-retaining tool for bone surgery according to claim 10 in which the fixing means is an O-ring.

12. A cavity-retaining tool for bone surgery according to claim 1 in which the observation means is a hole for observation prepared on the wall of the sheath.

13. A cavity-retaining tool for bone surgery according to claim 12 in which the observation hole is provided with a scope fitting means which fits the tip of a scope to the tip of the cavity-retaining sheath.

14. A cavity-retaining tool for bone surgery according to claim 13 in which the scope fitting means is an elastic material.

15. A cavity-retaining tool for bone surgery according to claim 1 in which the cavity-retaining sheath has a duplicate structure comprising inner and outer sheaths.

16. A cavity-retaining tool for bone surgery according to claim 15 in which the observation means, when observation windows are prepared on the tips of the inner and outer sheaths of the cavity-retaining sheath, consists of allowing, when the inner and outer sheaths are combined, the two observation windows to overlap.

17. A cavity-retaining tool for bone surgery according to claim 16 in which at least either one of the windows prepared at the inner and outer sheaths is made of a transparent material.

18. A cavity-retaining tool for bone surgery according to claim 15 in which the cavity-retaining sheath has an air-tight means between the inner and outer sheaths.

19. A cavity-retaining tool for bone surgery according to claim 15 in which the fitting member is coupled to the inner sheath.

20. A cavity-retaining tool for bone surgery according to claim 1 which has, in part of its wall, at least either of water feed channel or suction channel extending from the front end to the base end of the sheath.

21. A cavity-retaining tool for bone surgery according to claim 1 comprises:

- a cavity-retaining sheath which is inserted into body tissues and maintains a work space for the treatment of a vertebral body by retaining a cavity;

- a treatment channel which is prepared in the sheath and guides tools for the treatment of a vertebral body and an implant into the work space for the treatment of a vertebral body; and an observation means which is placed in the sheath and by which to observe endoscopically the operation field within the work space for the treatment of a vertebral body.

22. A cavity-retaining tool for bone surgery according to claim 1 in which the observation means is an endoscope passing through an internal cavity of cavity-retaining tool.

64

23. A cavity-retaining tool for bone surgery according to claim 22 in which the fitting member is represented by an anchoring means implemented at the tip of the cavity-retaining sheath.

24. A cavity-retaining tool for bone surgery according to claim 23 in which the anchoring means comprises:

- at least a spike channel prepared in the wall of the cavity-retaining sheath; and

- at least a spike which is driven into a bone after passing through the spike channel.

25. A cavity-retaining tool for bone surgery according to claim 24 in which the tip of the spike channel communicates either with the scope channel or with the treatment channel, and is placed within the visual field of the endoscope.

26. A cavity-retaining tool for bone surgery according to claim 24 in which the spike channels are shifted in position to one side in the cross-section of the sheath.

27. A cavity-retaining tool for bone surgery according to claim 24 in which the spike channel, at least its part, lies in the wall of the cavity-retaining sheath.

28. A cavity-retaining tool for bone surgery according to claim 24 in which the spike channel, at least its part, is placed close to the internal wall of the cavity-retaining sheath.

29. A cavity-retaining tool for bone surgery according to claim 23 in which the anchoring means is an anchoring member which is inserted into the channel for treatment, and comprises a stem which has a similar external diameter to the internal diameter of the treatment channel, and a needle member at the tip.

30. A cavity-retaining tool for bone surgery according to claim 1 which further comprises, at the tip of sheath for retaining a cavity, a sharp part capable of stripping a bone tissue of body tissues.

31. A cavity-retaining tool for surgery which is inserted into body tissues to be ready for use comprises:

- a cavity-retaining member which retains a cavity for operation works in the body; and

- a cylinder member which communicates with the cavity retained by the cavity-retaining member and interconnects a space outside of the body with the cavity, and is used for surgery, by allowing an endoscope and operation tools to be inserted through the cylinder member into the cavity retained by the cavity-retaining member, the cavity-retaining member including an end portion having contour means for mating the end portion to a selected surface of a bone.

32. A cavity-retaining tool for surgery according to claim 31 in which the cavity-retaining member comprises an inner wall facing the cavity and an outer wall facing body tissues.

33. A cavity retaining tool for surgery according to claim 32 in which the cavity-retaining member is a ring member.

34. A cavity retaining tool for surgery according to claim 32 in which the cavity-retaining member is made of a material which can undergo deformation, and expands the cavity with a cavity expanding means and retains the resulting cavity.

35. A cavity-retaining tool for surgery according to claim 31 or 32 which has a positioning means to maintain the cavity-retaining member with respect to a desired position in the body.

36. A cavity-retaining tool for surgery according to claim 35 in which the positioning means is a handling member which is connected to the cavity-retaining member and extends towards outside the body, and whose cross-sectional area is smaller than that of the cavity formed by the cavity-retaining member.

65

37. A cavity-retaining tool for surgery according to claim 36 in which the handling member has a channel to communicate with the cavity formed by the cavity-retaining member.

38. A cavity-retaining tool for surgery according to claim 35 in which the positioning means is represented by indentations formed upon the external wall surface of the cavity-retaining member.

39. A cavity-retaining tool for surgery according to claim 35 in which the positioning means has a retraction which extends from the tip of the cavity-retaining member towards the external wall, and which acts as a hook against body tissues.

40. A cavity-retaining tool for surgery according to claim 32 in which the cavity-retaining member has a hole prepared on at least a part of its wall which acts as a guide to introduce an endoscope or a tool into the cavity.

41. A cavity-retaining tool for surgery according to claim 32 in which, with regard to the cavity-retaining member, its internal cavity has long and short axes.

42. A cavity-retaining tool for surgery according to claim 41 in which the internal cavity of the cavity-retaining member has an ellipsoidal or elongated circular shape.

43. A cavity-retaining tool for surgery according to claim 31 in which the cylinder member is produced after a sheet member made of a resin has been made into a tube-like structure.

44. A cavity-retaining tool for surgery according to claim 31 in which the cylinder member is so constructed that its internal diameter is narrow at a tip and enlarges towards a base end.

45. A cavity-retaining tool for surgery according to claim 31 in which the cylinder member has its interior partitioned into a plurality of channels.

46. A cavity-retaining tool for surgery according to claim 31 in which the cylinder member has a hole prepared at least at one spot on the wall which acts as a guide to introduce an endoscope or a tool into the cavity.

47. A cavity-retaining tool for surgery according to claim 31 which has a guide member for tool insertion being connected to the cavity-retaining member and extending through the cylinder member towards outside the body, and in which the guide member for tool insertion is provided with a guide surface leading to the cavity formed by the cavity-retaining member.

48. A cavity-retaining tool for surgery according to claim 47 in which the guide member for tool insertion acts also as a handling member which is connected to the cavity-retaining member and extends towards outside the body.

49. A cavity-retaining tool for surgery according to claim 31 which is further provided with a bone fitting means which fits the tip of the cavity-retaining member to a bone.

50. A cavity-retaining tool for surgery according to claim 31 in which the cavity-retaining member further introduces an endoscope as an observation means by which to observe the operation field in the cavity for operation works.

51. A cavity-retaining tool for surgery according to claim 50 in which the endoscope is provided with an irrigating means.

52. A cavity-retaining tool for surgery according to claim 31 further comprising at least one port for tool introduction separate from the cavity-retaining tool which is led to the cavity retained by the cavity-retaining tool.

53. A cavity-retaining tool for surgery according to claim 52 further comprising an interconnecting means which connects the cavity-retaining member with the port.

54. A cavity-retaining tool for surgery according to claim 53 further comprising:

66

one of at least a part of a wall of its cavity-retaining member and a cylindrical member made of soft material having an elastic property; and

a port insertion member which has a diameter allowing itself to be inserted into the port, and a needle segment which allows itself to penetrate through the part made of elastic material at a tip, and

wherein interconnecting the cavity-retaining member with the port is achieved by penetrating an elastic material having an elastic property with the needle segment to produce a hole, by inserting the port through the hole, and by allowing the port to be connected by elasticity to the elastic material.

55. A cavity-retaining tool for surgery according to claim 53 in which:

the hole which is prepared on a part of the wall and communicates with the cavity for treatment is expandable and contractible; and

the port which has a larger diameter than the hole, and the port is allowed to penetrate the hole while enlarging it and is connected by elasticity to the hole.

56. A cavity-retaining tool for surgery according to claim 54 or 55 in which the port has indentations at its tip.

57. A cavity-retaining tool for surgery according to claim 31 in which the soft tubular member is an elastic member.

58. A method involving the use of an endoscopic surgery system which comprises a sheath for surgery having a cavity-retaining means at a tip and includes a plurality of ports, and which consists of:

a. preparing a route for advancing into the body from a specific position and with a specific angle;

b. advancing a sheath for surgery along the route and retaining a cavity with a cavity-retaining means;

c. inserting, after the sheath is removed from the body, sheaths for endoscopic insertion and for tool insertion into the cavity retained by the cavity-retaining means;

d. inserting an endoscope either through the sheath for surgery or through the sheath for tool insertion, and then inserting tools through an unused sheath; and

e. making an operation under endoscopic observation.

59. A surgery system comprising:

a cavity-retaining tool for surgery having a cavity-retaining member to retain a cavity for surgery works in a body, and a soft cylinder member which communicates with the cavity retained by the cavity-retaining member and interconnects the cavity with a space out of the body; and

a body penetrating tool which produces an access route for the cavity-retaining tool for surgery by expanding a space between muscle fibers in the body tissue, the cavity-retaining member including an end portion having contour means for mating the end portion to a selected surface of a bone.

60. A surgery system according to claim 59 in which the body penetrating tool comprises a combination of a plurality of tubular members with different diameters increasing stepwisely.

61. A surgery system according to claim 59 in which, with regard to the body penetrating tool, its tip has a conical shape.

62. A surgery system according to claim 59 in which the body penetrating tool is a tubular member which allows an endoscope to pass through its interior, is provided with an observation window and has, at its end, at least either one of means for coagulating incision and stripping.

67

63. A surgery system according to claim 59 in which is further provided with a guide member which can be placed around the body penetrating tool, has a cavity sized for inserting a sheath for surgery therethrough and allows the cavity-retaining tool to be guided into body tissues.

64. A surgery system according to claim 59 in which the cavity-retaining tool can be placed around the body penetrating tool.

65. A surgery system according to claim 59 in which the body penetrating tool also acts as a guiding means to guide the cavity-retaining tool into the body.

66. An endoscopic surgery system, comprising:

a cavity retaining tool having a cavity-retaining means which is introduced through a skin incision into body tissues, and retains a cavity for surgery works, and a communicating means which communicates with the cavity retained by the cavity-retaining means and interconnects the cavity with the space out of the body;

at least one port for inserting tool as endoscope and treatment tools which is introduced through a skin incision other than above to penetrate the wall of cavity-retaining tool to be led into the cavity retained by the cavity-retaining tool; and

an interconnecting means which interconnects the port and the cavity-retaining tool in body tissues.

67. An endoscopic surgery system according to claim 66 in which the cavity-retaining tool has the wall to divide the cavity from body tissue, the wall has at least a hole, the port is allowed to have a thread on its tip, and the port is interconnected to the hole by screwing the thread into the hole.

68. An endoscopic surgery system according to claim 66 in which the cavity-retaining tool has the wall to divide the cavity from body tissue, the wall has at least a hole, the port is allowed to have a retraction member extending radially on the tip, and the port is connected to the hole by inserting the retraction member into the hole.

69. An endoscopic surgery system according to claim 66 in which the cavity-retaining tool has the wall to divide the cavity from body tissue, the wall has at least a hole, and the hole is at the same time expandable and contractible; and the port which has a larger diameter than said hole, and the port is allowed to penetrate the hole while enlarging it and is connected by elasticity to the hole.

70. An endoscopic surgery system according to claim 69 in which:

at least a part of the cavity-retaining tool has a knitted part composed of a net line; and

the interconnecting means is holes formed on the knitted part composed of the net line which allows the insertion of the port.

71. An endoscopic surgery system according to claim 69 further comprising a hole expanding means to expand a hole prepared on the wall of cavity-retaining tool wherein the port can be attached from outside to the expanding means.

72. An endoscopic surgery system according to claim 71 in which the hole expanding means comprises a combination of a plurality of tubular members with different diameters increasing stepwisely.

73. An endoscopic surgery system according to claim 71 in which, with regard to the hole expanding means, its tip has a conical shape, and its external size is the same with the internal diameter of the port.

74. An endoscopic surgery system according to claim 66 which is further provided with a port guide member to guide the port into the cavity.

68

75. An endoscopic surgery system according to claim 74 in which the port guide member comprises a port introducing part allowing introduction of the port, and a port introduction position determining means.

76. An endoscopic surgery system according to claim 75 in which:

the port introduction position determining means comprises a fitting part to fit to the cavity-retaining tool and an interconnecting part to interconnect the fitting part and the port introduction part; and

the port introduction part is positioned such that the extension of its axis crosses the cavity.

77. A surgery system according to claim 66 in which:

at least a part of wall of the cavity-retaining tool is made of a soft material having an elastic property, and a port insertion member which has a diameter to allow itself to be inserted into the port for tool insertion, and has a needle segment at the tip which can penetrate the soft member having an elastic property; and

interconnecting the cavity-retaining tool with the part is achieved by penetrating the soft material having an elastic property with the needle segment to produce a hole, by inserting the port through the hole, and by allowing the port to be connected by elasticity to the soft material.

78. An endoscopic surgery system according to claim 77 which further comprises a hole expanding means to expand a perforation through the wall member.

79. An endoscopic surgery system according to claim 78 in which the hole expanding means comprises a guide needle with a tip having a conical shape, and a combination of a plurality of tubular members with different diameters increasing stepwisely.

80. A cavity-retaining tool for retaining a cavity for surgery which is inserted through body tissues into the body comprising:

a cavity-retaining member to retain a cavity for surgery works in the body; and

a communicating member to be connected to the cavity-retaining member and to interconnect the cavity with the space outside the body,

wherein a cross-sectional area of the communicating member is smaller than an inner cross-sectional area of the cavity retained by the cavity-retaining member, the cavity-retaining member including an end portion having contour means for mating the end portion to a selected surface of a bone.

81. An endoscopic surgery system, comprising:

a cavity-retaining tool which is inserted into body tissues through an incision to retain a cavity in the body tissues; and

a cavity-retaining tool insertion location finding member which is inserted into the body through the incision to find the insertion location of the cavity-retaining tool by detecting uneven forms of a hard tissue around a site to be treated in a deeper part of the body, the cavity-retaining tool insertion location finding member including an end portion having contour means for mating the end portion to a selected surface of a bone.

82. An endoscopic surgery system according to claim 81 further comprising a body penetrating tool which expands a space between muscles fibers in body tissues to produce an access route for the cavity-retaining tool.

83. An endoscopic surgery system according to claim 82 in which the cavity-retaining tool insertion position location finding member comprises:

69

a reference member which forms a frontal surface of the tip of body cavity penetrating tool to hit against an elevated part around a site to be treated, an index member which protrudes from the tip of cavity-retaining tool to fit into a depressed part around a site to be treated,

and in which finding the insertion location of cavity-retaining tool is achieved:

by placing the body cavity penetrating tool and the cavity-retaining tool in parallel to allow them to move along their respective long axes; and

by, when the two tools are inserted into the body until they hit against hard tissues, observing a difference in readings from the index member and reference member.

84. An endoscopic surgery system according to claim 81 in which the cavity-retaining tool insertion locating finding means comprises:

a reference portion of the tip of body cavity penetrating tool which hits against an elevated part around a site to be treated; and

an index portion of the tip of cavity-retaining tool which fits into a depressed part around a site to be treated, and in which finding the insertion location of the cavity-retaining tool is achieved by fitting the reference and index portions to elevated and depressed parts of a hard tissue.

85. A cavity-retaining tool for bone surgery, comprising: a cavity-retaining sheath which is inserted into body tissues so that an internal cavity thereof forms a work space for bone surgery;

a treatment channel attached to the cavity-retaining sheath to guide tools necessary for bone treatment into the work space for bone surgery;

an observation means attached to the cavity-retaining sheath by which to observe an operation field in the work space for bone surgery; and

a tissue-contour fitting means placed at a tip of the cavity-retaining sheath for mating the tip faithfully to a contour or shape of a bone.

86. A cavity-retaining tool for bone surgery according to claim 85 in which the tissue-contour fitting means takes a shape to fit faithfully to a shape of a bone.

87. A cavity-retaining tool for bone surgery according to claim 86 in which the tissue-contour fitting means takes a shape to fit faithfully to the shape of the anterior aspect of a vertebral body.

88. A cavity-retaining tool for bone surgery according to claim 87 in which the tissue-contour fitting means has a tip

70

which is shaped like a curved surface to fit faithfully to the contour of lateral side of a bone.

89. A cavity-retaining tool for bone surgery according to claim 88 in which the tissue-contour fitting means has a tip which is shaped like an inclined surface.

90. A cavity-retaining tool for bone surgery according to claim 87 in which the tissue-contour fitting means has a tip which is provided with a lobular rejecting member.

91. A cavity-retaining tool for bone surgery according to claim 86 in which the tissue-contour fitting means has a shape to fit faithfully to the shape of a bone around a vertebral arch posterior to a vertebral body.

92. A cavity-retaining tool for bone surgery according to claim 91 in which the tissue-contour fitting means is constituted with a substantially cylindrical material, and a part of the wall of the cylindrical material protrudes from the tip.

93. A cavity-retaining tool for bone surgery according to claim 91 in which the tissue-contour fitting means is constituted with a substantially cylindrical material which is provided with a rejecting member extending towards the tip from a part of its wall.

94. A cavity-retaining tool for bone surgery according to claim 91 in which the tissue-contour fitting means is substantially shaped like a cylinder, and has an opening towards a spinous process side.

95. A cavity-retaining tool for bone surgery according to claim 91 in which the tissue-contour fitting means is substantially shaped like a cylinder having a cross-section which is an ellipsoid having a long and short axis, with the long axis corresponding with a cephalo-caudal direction.

96. A cavity-retaining tool for bone surgery according to claim 85 in which the tissue-contour fitting means is provided with a cavity expanding means by which to expand the internal cavity retained by the cavity-retaining sheath.

97. A cavity-retaining tool for bone surgery according to claim 85 in which the tissue-contour fitting means is provided with a deforming means by which to deform itself to fit faithfully to the shape of a bone to be fitted.

98. A cavity-retaining tool for bone surgery according to claim 97 in which the deforming means is made of a rubber-like soft material.

99. A cavity-retaining tool for bone surgery according to claim 97 in which the deforming means is made of an elastic material.

100. A cavity-retaining tool for bone surgery according to claim 97 in which the deforming means is at least a movable member of a tip of the cavity-retaining tool.

101. A cavity-retaining tool for bone surgery according to claim 1 or 85 in which the cavity-retaining tool is made of a material transmissive to X-rays.

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